

ridge continued obliquely upwards from above the upper edge of the petrous bone, that the cerebellum has been situated wholly behind the cerebrum; we learn also from the same structure of the enduring parts that these perishable masses were not divided, as in the *Manis*, by a bony septum, but by a membranous tentorium, as in the *Glossothere* and *Armadillos*: in the *Orycteropus*, as has been before remarked, there is a strong, sharp, bony ridge extending into each side of the tentorium. The vertical diameter of the cerebellum and medulla oblongata equals that of the cerebrum, and is two inches three lines: the transverse diameter of the cerebellum was about three inches nine lines; its antero-posterior extent about one inch and a half. The sculpturing of the internal surface of the cranial cavity bespeaks the high vascularity of the soft parts which it contained, and there are evident indications that the upper and lateral surfaces of the brain had been disposed in a few simple parallel longitudinal convolutions. The two anterior condyloid foramina (*m*) have the same relative position as the single corresponding foramen in the *Glossothere*, *Orycterope*, and *Armadillos*, and the inner surface of the skull slopes outwards from these foramina to the inner margin of the occipital condyle.

Of the bones of the face there remain only portions of the malar, lachrymal, palatine, and maxillaries. The chief peculiarities of the malar bone have been already noticed: the breadth of the base of the descending masseteric processes is two inches two lines; its termination is broken off: the length of the ascending post-orbital process of the malar cannot be determined from the same cause, but it is fortunate that sufficient of this part of the cranium should have been preserved to give this evidence of the affinities of the *Scelidothere* to the *Megathere*. The malar bone is continued anteriorly, in a regular curve forwards and upwards, to the lachrymal bone, and completes, with it, the anterior boundary of the orbit: the size of the orbit is relatively smaller than in the *Orycterope*, and still less than in the *Ant-eaters*: here, however, we have merely an exemplification of the general law which regulates the relative size of the eye to the body in the mammalia. The malar bone does not extend so far forwards in front of the orbit as in either the *Orycterope* or *Armadillo*; in the inclination, however, with which the sides of the face converge forwards from the orbits, the *Scelidothere* holds an intermediate place between the *Armadillos* and *Orycterope*.

The lachrymal bone does not extend so far upon the face in the *Scelidothere* as in the *Orycterope*; in which respect the *Scelidothere* resembles more the *Megathere*. The foramen for the exit of the infra-orbital nerve has the same situation near the orbit as in the *Megathere*; its absolute distance from the anterior border of the orbit is only half that in the *Orycterope*. The foramen is single in the *Scelidothere*, as in the *Orycterope*; in the *Megathere* there are two or three antorbital foramina. The vertical diameter of this foramen is eight lines, the transverse diameter four lines. So much of the outer surface of the superior maxillary bones as has been pre-

served, is smooth and vertical. Each superior maxillary bone contains the sockets of five teeth, occupying an antero-posterior extent of three inches seven lines, (Pl. XXII and XXIII. fig. 3). The posterior alveolus is situated just behind the transverse line, extending across the anterior boundary of the orbits; the remaining sockets of the molar series extend forwards three inches in front of the orbits. In the *Megatherium*, the roots of the five superior molars are all situated behind the anterior boundary of the orbit: in the *Orycteropus*, on the contrary, the grinders are all placed in advance of the orbit; so that the *Scelidothere* resembles that species more than the *Megathere* in the relative location of the teeth. The palatal interspace between the roots of the last molar tooth of each series is eleven lines; the palate gradually though slightly widens, as it advances forwards: the posterior margin of the palate is terminated by an acute-angled notch. In the breadth of the bony palate the *Scelidothere* is intermediate between the *Megathere* and *Orycterope*.

The anterior of the upper molars is represented at fig. 3, 4, and 5, Pl. XXI., and at 1, fig. 3, Pl. XXIII.; it corresponds closely in form and size with the opposite molar below; the base of the triangle given by its transverse section is turned inwards and obliquely forwards.

The second molar of the upper jaw, also presents in transverse section a triangular form, with the angles rounded off; but the inner side of the tooth is traversed by a longitudinal groove. The largest diameter of the transverse section, which is placed obliquely as regards the axis of the skull, measures ten lines and a half; the opposite diameter of the tooth is six lines.

The third and fourth molars present the same form and size, and relative position as the second.

The fifth molar is the smallest of the series; its transverse section gives an inequilateral triangle, with the corners rounded off; the broadest side is turned outwards, and is slightly concave; the antero-posterior diameter of this tooth is seven lines; the transverse four lines. The length of the teeth in the upper jaw is about two inches and a half.

It is almost superfluous to observe that the teeth of the *Scelidothere*, as in other *Bruta*, are without fangs, and have their inserted base excavated by large conical cavities, for the lodgment of a persistent pulp. The tooth is composed of a small central body of coarse ivory or 'dentine,' traversed by medullary canals, which at the periphery of the coarse dentine anastomose by loops, from the convexity of which the calcigerous tubes are given off which form the fine dentine: the layer of this substance, which immediately surrounds the coarse dentine, is about one line and a half in thickness, and the whole is invested with a very thin coating of cement. The teeth of the *Scelidothere* thus